App. F. IX-4

Previous References

1929-30 (Census)

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Serial Nos. 3

Later References

General and Revenue Secretariat.

Serial Nos.

Part B for April 1930

SUBJECT

Mr. K. B. Madhavan Nair, M.A., M.L.,
Census Operations

D.O.No. 21 one of 22 Pages.

Office of the Census Superintendent in Mysore, 'Race View,' High Ground, Bangalore, dated: 29th March '30.

Fins. 6-29-3

From

M.Venkatesa Iyengar, Esq., M.A.,
Census Superintendent in Mysore,
Bangalore.

GENERAL SECRETARY. 29 MAR. 1930 No.....

GENERAL MISCELLANEOUS 6034 1 APR. 1930

To

R. Ranga Rao, Esq., B.A., B.L.,
General Secretary to Government,
Bangalore.

6-29 Rt 2 B. March 30

Sir,

I have the honour to return herewith Mr. K.B.Madhava's Note on the Census operations received with your letter No. G.10975 dated the 10th March 1930. I have had two copies of the note made for reference in this office should any occasion arise.

I have the honour to be,

Sir,

Your most obedient servant.

29/3/30

M. Venkatesaiyengar

Census Superintendent.

No action is called for. This will be filed after perusal

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vvk.

In accordance with the oral suggestion made by the Third Member of Council, I submit the following Note as a basis for consideration by him of the manner in which the undersigned could be of assistance in the forthcoming Census operations. It was also understood, I believe, that this Note should be based upon the following assumptions, viz.

(1) that there would be appointed a "Senior Officer" as a full time Superintendent of Census operations in Mysore and that

(2) it is desired to include material and means of a technical and scientific character within the scope and methods of the next Census in Mysore in which my participation would be advantageous, but that

(3) it may not be possible to relieve me altogether from the work or the responsibility of the Professorship which I hold in the University.

This last circumstance, I understand however, would not be a difficult one to negotiate with if the main or the central census office is located at Mysore and while I may compare the relative suitability of the two places, Bangalore and Mysore, in such matters, as say, accommodation etc., I am desired to suggest an alternative scheme available in the circumstance that the central office is finally decided upon to be located in Bangalore. In any

with the Vice-Chancellor a plan of arrangements that should be made in my Department in the University for the proper conduct of the work.

SECTION I.

In this Section of the Note I shall merely enumerate serially a few of the chief special enquiries, or reference through special articles and paragraphs in the Reports, relating to special subjects in the several Census Reports of 1921

Error in Vital Statistics as determined from Census enumerations Punjab (Appendix I)
Accuracy of birth registration - Baroda (Appendix II
Vital Statistics - experiment in Muzaffarpur District - Bihar and Orissa (7 i)
Presentation of Birth and Mortality rates - Bengal (213)
Tests on Vital Statistics etc. -- Bengal (232)
Interrelation between the various causes of death - Bombay (Appendix U)

Enquiry re. fertility of marriages - Bengal (220)
Ditto and size of family - Baroda (Chapter VI)
Size and Sex conditions of families - Travancore(64)
Analysis of families - Bombay (Appendix V)
Size and sex constitution of families - Bihar and Orissa (174)
Season of gestation and sex at birth - Ajmere etc. (142)
Age and duration of marriage - Bengal and also Baroda.
Chances of survival of children born in various years of married life - Punjab (Appendix V)
Special inquiry of families - Bengal 34,686 slips
B and O 12,593 slips
C.P. 1,57,181 slips
Punjab ..1,66,419 slips
Baroda ..1,31,255 slips
Travancore. .. 37,641 slips.
Actuarial Report - Baroda (174 - Actuary Prof.Vaidyanathan India (special publication by Mr.H. G.W.Meikle)
Centre of population - special districts - Baroda by Prof. Vaidyanathan - also Bengal.
Mean scalar distance - Punjab (Appendix III)
Overcrowding in towns - Central Provinces (40)
Ditto - United Provinces (Appendix E)

Investigation on
prices and birth rates - Bombay (Appendix X)

Irrigation and population - Bombay (Appendix L)
Food supply and population- Burma (34) also Bengal
Rainfall and blindness - Ajmer-Merwara and Rajputana - (208)
Cottage Industries - Assam (Appendix E), Punjab (Section VI), also Travancore (147)
Labour Census - Travancore (154)
Cattle Census - Travancore (151) also Baroda (App.IV)
Tea garden population - Assam

Trade in local Markets - Assam (167)
Patna Bazaar - B. and O. (95)
Market of Mau - U.P. (Appendix D)

Economic condition - agricultural and pastural - Baluchistan (79)
Industrial occupations - Madras (183-202)
Occupations in Mandalay District - Burma (Appendix C)

Family Budgets - Assam (Appendix F)
Ditto -Bombay (Appendix W)
Cost of ceremonies - Bombay (Appendix S)

Account of an abortive attempt to test the extent of lapse from literacy - Bengal (300)

This selected list of a few of the chief special enquiries cannot of course be exhaustive but the main considerations necessitating any special investigation will doubtless be suggested by the various development departments of the State. It is obvious that there are several outstanding problems in the following activities of the State:-- Public Health, irrigation, agriculture, industries, economic condition, labour, trade, education, social relief, political and other franchise, taxation, etc. Some of them have been more or less accurately assessed as occasions arose but most of them are very properly left over for combination in the decennial population census and in any

case that opportunity is available for taking a review of the changes that have taken place during the decennium or a ppep into the future for the prospects of several schemes that are under contemplation. To give some examples: The 12th American Federal Census was specially entrusted with the getting of information on real estate mortgage indebtedness. David Kinley writes of it as follows (Page 219 of the Report of the Committee of the 12th Census) "the inquiry was set on foot at the last moment of preparation for taking census; it concerned matters on which people generally and Americans particularly are very averse to giving information. It was denounced as inquisitorial, as prying into private affairs and extending Government authority to the detriment of the individual. So intense was the feeling that some people advised resistance to the Census office in its attempts at getting information. ... But the painstaking consciousness in the manipulating of the data, the thorough knowledge of the proper methods of approaching the subject and an appreciative sense of the difficulties and defects and skilled treatment of the results enabled the investigators to ascertain accurately and with a high degree of completeness a work of outstanding value and merit. Thus

questions of renting, of ownership, of the acreage of farms and of mortgage, are certainly and entirely within the possibilities of census taking-"
Sir Charles Todhunter's Committee on Taxation (page 339 of Report) required for the proper report on one of the terms of reference to them, complete statistical data of income, indebtedness, standard of living, and level of prices, before the incidence of taxation could be prpperly assessed or even understood. Similarly the Royal Commission on Agriculture suggests several problems; for instance, on page 614 of their Report, they say "There is also much useful work to be done in correlating the data of the incidence of disease and the death rate in rural areas with those relating to the agricultural conditions which prevail in those areas and with changes in those conditions arising from such causes as the extension of irrigation, improvements in the drainage of deltaic tracts and the like. Similarly the correlation of statistical data relating to health conditions with changes in diet and with the conditions under which the staple foods consumed in the tract under consideration are grown, whether for example they come from irrigated or 'dry' land, should in time yield information of the greatest value". Thus there is no lack or paucity of problems that await both

intensive or extensive investigation.

SECTION II.

It is difficult to specifically catalogue now a list of the inquiries that should be undertaken the next census in Mysore. Besides the fact that they should naturally relate to the problems before the several State departments and therefore to be mentioned by them, they are governed by the exigencies of time, funds and facilities that may be made available for the purpose. Moreover the general instructions from the Chief Census Commissioner have to be awaited and parity and uniformity with the investigations in the other parts of the country should be considered. In view however, of their pressing importance and urgency I venture to detail below tentatively a few topics as worthy of investigation; and it is essential that Government should pass specific orders of approval at every stage in the undertaking and progress of such inquiries as are finally ordered upon - selection of topics scheduling of questionnaire and manner of investigation.

I consider Housing statistics as one of the

most important topics. They have to be judged in relation among others, to (1) structure and conveniences (2) value at construction, present and prospective (3) rents, means of occupiers (4) rates, upkeep charges, losses through vacancies (5) demand and supply (6) pressure and crowding (7) health and environment etc. Several other most important topics also occur, but they are all matters of detail. However the inquiry should serve to answer whether selected towns are properly and adequately "extended", "beautified and improved", whether "housing conditions in rural areas are more or less satisfactory in towns", "unearned increments on urban sites are or are not adequately taxed" and whether say, "Prince Otto"'s words "and though we should be grateful for good housing there is after all no house like God's-out-of-doors" are just or otherwise. This inquiry should start with house numbering operations at the very commencement of the census and needs of course the co-operation of local and municipal officers. Bangalore and Mysore cities should of course be included in the inquiry, but which of the other district headquarters and minor municipalities should also be included may be decided by Government.

Closely akin to this is the investigation

of the process of URBANISATION out of (a) official (b) industrial and (c) railway colonies or arising out of necessitous depopulation of rural occupations and habitations. This inquiry should also be intensive and trace to sources (1) causes, courses and durations of migration (2) wages, means and alterations in the economic status of migrants, and deal with (3) health (4) and housing (5) and family status (6) and with social, educational and recreational amenities and (7) assess the value and magnitude of municipal and social services. A number of other factors, for instance, community, caste and educational equipment of migrants require also to be correlated with this study which is one of those that could be entered upon in the preliminary stages of the census operations. And to obtain best results Government may indicate the precise areas which have to be so investigated by taking into account areas that have been subject to considerable fluctuations in the last decennium.

From areas which are not so subject to large fluctuations as above, another topic for intensive investigation arises, viz., the inquiry into the NATURAL INCREASE OF POPULATION.

The effectiveness or otherwise of the registration of births and deaths, the alterations in families in different communities by such causes, the assessment of the various factors contributing towards the births and deaths, the intensive calculation of mortality rates at various ages are some of the most important subjects, and it is no exaggeration to say, that medical science, acturial and vital sciences or even forms of public and social relief are to a certain extent at standstill owing to the paucity of authentic and significant information on some or all of these topics. In demography the question of far reaching importance is the law of the natural increase of mankind and no information, however fragmentary or meagre, can be afforded to be lost, in the unravelling of this mystery. In this connection many subsidiary inquiries of density, food supply, natural phenomena, constitutional diseases and epidemics etc. such as were dealt with in the last census in Bombay, Bengal and various other parts, and are suggested by the extracts from the Report of the Lord Linlithgow Commission already referred to, are also to be carried on. An intensive investigation was, I believe, carried on in the State as to the prevalance of malaria, hookworm and tuberculosis - the incidence of these or of any other similar ones that the

Medical Department may be inclined to suggest should be undertaken more intensively in particular parts of the State, say Malnad, with a view to shed some light upon the natural growth of mankind in relation to biologic and eugenic factors and of their effects on fertility and survival, because after all the chief problem of population is ultimately the problem of conservation of the prospective man-power and man-vigour of the nations. This inquiry is as vast as it is intricate and with the limitations of time as well as of money, it is only reasonable that it may be started upon as early as convenient and with as much of elasticity in scope and method as may be desirable.

An allied problem on the borderland between Biology, Demography and Politics is the CONSTITUTION and SIZE of the FAMILY. This problem of fertility is one of the most fertile by itself - the most scientific, voluminous and interesting investigations of Matthews Duncan, Lewis & Lewis, Knibbs, Coghlan, National Birth Rate Commission, in other countries and of Marten Sedgwick and Mazumdar among others in our own country, bring up a plentiful crop of problems

to mind. Conditions of isogamy - age, prior relation, and constancy, - factors in fecundity - ages at marriage, duration of marriage, economic status, nutrition, social status and habits, caste and religion, cyclical variations etc - births - plurality, masculinity, order, live-and-still, interval and survival - and social distribution. These are old problems. The signification of modern theories of marriage and consummation in terms of national prosperity, of minors' marriages, of extra-marital conditions, of contraception and of inheritance of characters or of characteristics need also to be examined. These are problems of considerable significance and I believe my classes on Social measurements have created a school of their own in stimulating the reading and reasoning of many of my students. Personally speaking I am anxious also that a new and yet further orientation can also be given to our studies by including in our investigations statistical analysis of distinguished families -- longevity, scholarship and talent, statesmanship and service etc., together with the persistence or otherwise of such traits in the subsequent orders of family descent. This, which I may describe as a Dictionary of National Biography, will be an original investigation though

but it would be difficult to name it as an unwanted study. The thorough house-to-house canvass of a census by persons of interest and intellect is the most suitable means for the carrying on of such an investigation. In any case, I have no doubt that the Chief Commissioner of Census will this time also suggest an intensive investigation by provincial Superintendents ~~of~~ into family size and constitution.

I will only name here other problems demanding intensive investigation, as a full description of each would lengthen this note. AGE GRADUATION, LITERACY - INCOME AND EXPENDITURE WEALTH and INDEBTEDNESS - COST and STANDARD of LIVING - ECONOMIC CONDITION - AGRICULTURAL CENSUS - INDUSTRIAL CENSUS - OCCUPATIONS.

SECTION III.

The above enumeration would, I think, be sufficient to indicate the magnitude and importance of the work of special inquiries. Indeed, in the opinion of the Indian Economic Inquiry Committee, 1925 (Report - Paragraph 84) the regular organisation for such sustained and systematic inquiries was considered more essential, and it was there suggested that "in connection with the census of population

which is taken decennially, the future Director of Statistics should be able to discharge the duties now performed by a Census Commissioner. At each decennial census he might be given, for a period of four years, a competent assistant who would deal exclusively with the census work". With us however, things are exactly the other way about, and even the opportunities that arise in the censuses were given, prior to 1921 "mostly to ethnographic and linguistic reaearch". In the Resolution however, of the Government of India issued in June 1920, ushering in the last census, we read "that the Government of India desire that special attention should be given on the present occasion to the collection of statistical and general information bearing on the industrial and economic side of the life of the peoples". But not much could be done even thus. Pressure of time and work, insufficient provision for expenses, reluctance on the part of the peoples themselves, paucity of investigators and above all lack of expert and specialist help and guidance, were severally and jointly responsible for many shortcomings and failures, and the Census Commissioner for India wrote (Report - 1921 - page vii) "anything that the Census

department could achieve in this direction was of little value ... speaking generally, the efforts of the Census Superintendents where they have been directed outside the immediate scope of the population census, have been to obtain and present statistics which can be dealt with hereafter by trained experts." In Mysore too, some attempts were made to conduct economic census on certain seven subjects, but writes Mr.Thyagaraja Iyer (page 36 of Part III "Administrative Volume") "the response to the call for information was not encouraging .... the difficulty appears to be due to the lack of capable persons with sufficient interest in the subject, who are willing to undertake honorary work of this sort ... It would be better before undertaking special inquiries of any kind, to ascertain if the necessary agency can be made available and if not to drop them altogether".... and one of the problems that he has actually left on record as his suggestions to Government for the next census in 1931 (page 43 (b) v - ibid) is to consider "the question of special inquiries at the census". But the Government of India Census Commissioner actually suggests, as was done at the last census too, certain problems for special inquiry, but the

modification and amplification would of course be left to the provincial and other governments. The Royal Commission on Indian Agriculture conjures up throughout Chapter XVIII of their Report, and more particularly in paras 535-54, the utility of the expert statistical officer, and indeed of the evolution of a school of statistical interpretation of the economic and social life in India. Clearly what was possible at the census in 1921 in Bombay, Bengal and the Punjab, of course with the guidance and active intererest of persons like the late Mr.Sedgwick, Mr.Thompson and Mr.Middleton or Mr.Jacob, must accelerate the initiative of other Governments and induce them to give increased opportunities to the proper type of men. Thirty years ago at the beginning of this century, when the American Federal Census was being placed on a permanent and scientific basis, the organisation included " a director and an assistant director, and five chief statisticians" who were all persons "of known and tried abilities in economic and statistical work". For the purposes in India the aggis of University organisation or assistance from University staffs have been recommended (para 536 - Agricultural Commission Report; para 93 - Viswesvaraya Report); they have actually

been courted in the various Banking Committees now being appointed; they will, in almost absolute certainty, be called upon by Dr.Horne, the next Census Commissioner of India, to stimulate and assist the work of the next census. The point that I have been endeavouring to maintain is that the appointment of an expert economist and statistician, with a severe academic bent of mind and at the same time thoroughly conversant with the practical handling and interpretation of statistical work, from the very commencement of census operations will not only lighten the preliminary duties of the Census Superintendent, and give him the chance of expert assistance, but is calculated to profoundly enhance the prestige and value of the next Mysore Census investigations and Report. Doubtless it is essential that this officer should carry the authority and imprimatur of Government appointment, bear a designation such as Superintendent of Special Census Inquiries be responsible individually for his actions and opinions, but be assured of the fullest co-operation, sympathy and interest of the "boss", be free and able to obtain the participation of workers among whom may be, officials, non-

non-government officers of local bodies, intelligent private persons among landholders. traders, lawyers and students, with power to make local inquiries in person and above all be provided with ample budgetary grant. This may be a long list, but not longer than it necessarily ought to be, and it is essential for the successful termination of such special inquiries that Government should give all necessary assistance with sympathy, liberality and promptitude. Moreover the fullest amount of interest and participation can be afforded by the Mysore University to Government in this matter, which relates more particularly to matters of economic, sociological and statistical concern, only from this centre, and Mysore from other considerations too must, in spite of precedent, appeal to Government also as a proper venue for the next census. Expense and accommodation (during both the initial and intermediate stages) is no more difficult at Mysore than they are at Bangalore, facilities from the Government Press (which in Bangalore were much disturbed at the last Census owing to strikes etc.) are perhaps more easy to obtain at a relatively lighter place like Mysore Government Press, the advantage of the location

of the Wesleyan Mission Press (from which Mr.Tyagaraja Iyer says he obtained lot of work at the last census) at Mysore gives a decided preference for Mysore, and incidentally in many other ways fuller developments of the town of Mysore itself is secured consistent with the quietness, leisure and freedom which the Census work implies. Even if the Central Cenus Office is eventually decided upon for location at Bangalore, the location of the Office for Special Inquiries and later of the offices for slip-copying (which at the last Census were situated in the several District Headquarters and about the success or otherwise of which Mr. Thyagaraja Iyer has made some special remarks in various places in the Administrative volume of his Report), and of Abstraction can conveniently be located at Mysore. Also, if eventually on the advice and decision of the Government of India, the Hollerith Electrical Sorting Machines are decided upon for use (and I shall be in a position to say definitely what it will be in a short time from private advice from my friend, Mr. Hall, the Representative of the British Tabulating Machine Co. at Delhi, who is in frequent consultation with the Chief Commissioner of Census, Government of India etc.), the punching and sorting and tabulation can easily be secured within

a phenomenally short time and with amazing accuracy at Mysore where beside myself, there are other members and students of my Department in the University who have a knowledge of the working of these Machines. [Here I should like to have added a sentence in regard to Actuarial Report.] I naturally feel reluctant to tabulate the ideas in this paragraph, and more particularly, in the latter half of it, in the form of more definite and seriatim proposals.

SECTION IV.

I consider as most important the question of arrangements for the work in my Department in the Maharaja's College. The demands so made are of more than the ordinary nature on account of two factors; first on account of the institution of the Honours courses (which will come into fuller operation during 1930-31 and 1931-32), and secondly, on account of the unique and highly specialised character of the work we are now doing here in the applications of Mathematics and Statistics to social studies in general. Fortunately however, as this Department has been in existence since 1924 sufficient number of younger men who have themselves gone through these new courses are now available -- to wit,

Mr.D.Chandrasekhariah (Inter.College, Tumkur), Mr. M.R.Doreswamy and Mr.M.V.Jampunathan (both in Mysore Inter. College), Mr.K.V.Krishna Sastry (passed M.A., now unemployed) and T.Gopala Rao (now M.A. student). One (or two when needed) among these with say, Mr.M.J.Narayana Iyengar (now in Central College) for some Pure Mathematic work, and with redistribution of work among my present staff, would I think, constitute quite a useful combine. Nevertheless there will remain certain subjects like Social Measurements, Actuarial Science etc. for my own personal handling but this could be managed with about a third of my full or normal period of work. With this personal guidance from me, and by the appointment of an extra Assistant Professor (supplemented, if need be for a few months in 1931-32, by a Lecturer also) and increased opportunities for our own present Assistant Professor, Mr.M.Narayana Iyengar, I should think that the interests of the University and of the students are sufficiently and efficiently served. I think also that more specific suggestions are not called for now. But my suggestion that I need only do the lecturing work upon my special subjects is not acceptable to the Vice-Chancellor

and he thinks that it is essential that I should as now remain the Head of the Department, and be as usual in charge of the general responsibility of the work of the Department.

H. B. Madhava.